

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

W. James JACKSON *et al.*

Appl. No.: 10/701,844

Filed: November 4, 2003

For: **Chlamydia Protein, Gene
Sequence And Uses Thereof**

Confirmation No.: 3069

Art Unit: 1645

Examiner: BASKAR, Padmavathi

Atty. Docket: 2479.0040002/EJH/C-K

**First Supplemental Information Disclosure Statement
Filing under 37 C.F.R. § 1.97(c)**

Mail Stop Amendment

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Listed on accompanying IDS Forms are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98.

Copies of documents **FP1-FP3** and **NPL1-NPL35** are submitted. However, in accordance with 37 C.F.R. § 1.98(a)(2), copies of **US1-US7**, U.S. patents and patent application publications cited on the attached Forms PTO/SB/08A, are not submitted.

The Examiner's attention is directed to the following co-pending U.S. Patent Applications, which are directed to related technical subject matter:

Application No. 10/766,711, inventors Jackson, W.J., *et al.*, filed January 27, 2004, published on July 15, 2004 as U.S. Publication No. 2004/0137005 A1, listed herein as **US6**;

Application No. 10/931,779, inventors Jackson, W.J., *et al.*, filed September 1, 2004, published on March 3, 2005 as U.S. Publication No. 2005/0048557 A1; listed herein as **US7**; and

11/24/2006 MBERNE 60000144 10701844

02 FC:1006

100.00 02



- 2 -

W. James JACKSON *et al.*
Appl. No. 10/701,844

Application No. 08/942,596, inventors Jackson, W.J., *et al.*, filed October 2, 1997, not published; listed herein as **NPL35**.

The identification of these U.S. Patent Applications is not to be construed as a waiver of secrecy as to these applications now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during examination.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached IDS Forms based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Atty. Dkt. No. 2479.0040002

This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application. Attached is our PTO-2038 Credit Card Payment Form in the amount of \$180.00 in payment of the fee under 37 C.F.R. § 1.17(p).

It is respectfully requested that the Examiner initial and return a copy of the enclosed IDS Forms, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

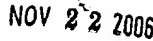
 #58,240

Elizabeth J. Haanes
Attorney for Applicants
Registration No. 42,613

Date: November 22, 2006

1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600

586180v1



Approved for use through 09/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known

(Use as many sheets as necessary)

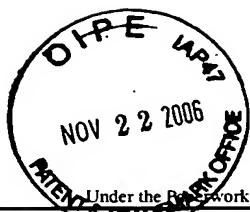
Application Number	10/701,844
Filing Date	November 4, 2003
First Named Inventor	W. James JACKSON
Art Unit	1645
Examiner Name	Baskar, Padmavathi
Attorney Docket Number	2479.0040002/EJH/C-K

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
	FP1	WO 96/31236 A1	10-10-1996	Smithkline Beecham Biologicals S.A.		
	FP2	EP 0818681 A1	01-14-1998	Hitachi Chemical Co., Ltd.		
	FP3	WO 98/10789 A1	03-19-1998	Connaught Laboratories Limited		

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08B (07-06)

Approved for use through 09/30/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for Form 1449B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Application Number	10/701,844
				Filing Date	November 4, 2003
				First Named Inventor	W. James JACKSON
				Art Unit	1645
				Examiner Name	Baskar, Padmavathi
Sheet	1	of	4	Attorney Docket Number	2479.0040002/EJK/C-K

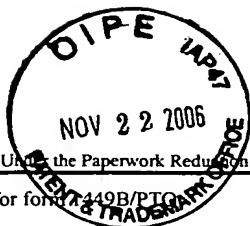
NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	NPL1	Amersdorfer, P., <i>et al.</i> , "Molecular Characterization of Murine Humoral Immune Response to Botulinum Neurotoxin Type A Binding Domain as Assessed by Using Phage Antibody Libraries," <i>Infect. Immun.</i> 65:3743-3752, American Society For Microbiology (1997)	
	NPL2	Barenkamp, S.J. and St. Geme III, J.W., "Identification of Surface-Exposed B-Cell Epitopes on High-Molecular-Weight Adhesion Proteins of Nontypeable <i>Haemophilus influenzae</i> ," <i>Infect. Immun.</i> 64:3032-3037, American Society For Microbiology (1996)	
	NPL3	Batteiger, B.E., <i>et al.</i> , "Species-, Serogroup-, and Serovar-Specific Epitopes Are Juxtaposed in Variable Sequence Region 4 of the Major Outer Membrane Proteins of Some <i>Chlamydia trachomatis</i> Serovars," <i>Infect. Immun.</i> 64:2839-2841, American Society For Microbiology (1996)	
	NPL4	Baughn, R.E., <i>et al.</i> , "Epitope Mapping of B-Cell Determinants on the 15-Kilodalton Lipoprotein of <i>Treponema pallidum</i> (Tpp15) with Synthetic Peptides," <i>Infect. Immun.</i> 64:2457-2466, American Society For Microbiology (1996)	
	NPL5	Brown, D.R., <i>et al.</i> , "Identification and Characterization of a Neutralizing Monoclonal Antibody Against Botulinum Neurotoxin, Serotype F, Following Vaccination With Active Toxin," <i>Hybridoma</i> 16:447-456, Mary Ann Leibert, Inc. (1997)	
	NPL6	Burnie, J.P., <i>et al.</i> , "Defining Antibody Targets in <i>Streptococcus oralis</i> Infection," <i>Infect. Immun.</i> 64:1600-1608, American Society For Microbiology (1996)	
	NPL7	Christiansen, G., <i>et al.</i> , "Molecular biology of the <i>Chlamydia pneumoniae</i> surface," <i>Scand. J. Infect. Dis. Suppl.</i> 104:5-10, Blackwell Science, Ltd. (1997)	
	NPL8	Cunningham, M.W., <i>et al.</i> , "Molecular Analysis of Human Cardiac Myosin-Cross-Reactive B- and T-Cell Epitopes of the Group A Streptococcal M5 Protein," <i>Infect. Immun.</i> 65:3913-3923, American Society For Microbiology (1997)	
	NPL9	Davies, D.R. and Cohen, G.H., "Interactions of protein antigens with antibodies," <i>Proc. Natl. Acad. Sci. USA</i> 93:7-12, National Academy of Sciences (1996)	
	NPL10	De Sa, C., "La protéine majeure de la membrane externe de <i>Chlamydia</i> : structure et fonctions," <i>Vet. Res.</i> 27: 317-331, ZDP Sciences (1996)	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08B (07-06)

Approved for use through 09/30/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known	
				Application Number	10/701,844
				Filing Date	November 4, 2003
				First Named Inventor	W. James JACKSON
				Art Unit	1645
				Examiner Name	Baskar, Padmavathi
Sheet	2	of	4	Attorney Docket Number	2479.0040002/EJK/C-K

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T ²
	NPL11	Delvig, A.A., <i>et al.</i> , "Immune responses to linear epitopes on the PorB protein of <i>Neisseria meningitidis</i> in patients with systemic meningococcal disease," <i>Microbiol. 142</i> :2491-2498, Society for General Microbiology (1996)	
	NPL12	Deslauriers, M., <i>et al.</i> , "Identification of Murine Protective Epitopes on the <i>Porphyromonas gingivalis</i> Fimbrillin Molecule," <i>Infect. Immun. 64</i> :434-440, American Society for Microbiology (1996)	
	NPL13	Duim, B., <i>et al.</i> , "Fine Mapping of Outer Membrane Protein P2 Antigenic Sites Which Vary During Persistent Infection by <i>Haemophilus influenzae</i> ," <i>Infect. Immun. 64</i> :4673-4679, American Society For Microbiology (1996)	
	NPL14	Fan, J. and Stephens, R.S., "Antigen Conformation Dependence of <i>Chlamydia trachomatis</i> Infectivity Neutralization," <i>J. Infect. Dis. 176</i> :713-721, University of Chicago Press (1997)	
	NPL15	Ghadjari, A., <i>et al.</i> , "Epitope mapping <i>Candida albicans</i> proteinase (SAP 2)," <i>FEMS Immunol. Med. Microbiol. 19</i> :115-123, Elsevier Science (1997)	
	NPL16	Janeway, C., <i>et al.</i> , <i>Immunogenicity</i> ,, John Wiley & Sons, Inc., New York, NY, pp. 65-71 (1989)	
	NPL17	Ji, Y., <i>et al.</i> , "Intranasal immunization with C5a peptidase prevents nasopharyngeal colonization of mice by the group A Streptococcus," <i>Infect. Immun. 65</i> : 2080-2087, American Society for Microbiology (1997)	
	NPL18	Lainson, F.A., <i>et al.</i> , "Characterization of epitopes involved in the neutralization of <i>Pasteurella haemolytica</i> serotype A1 leukotoxin," <i>Microbiol. 142</i> :2499-2507, Society for General Microbiology (1996)	
	NPL19	Li, C.H., <i>et al.</i> , "β-Endorphin Omission Analogs: Dissociation of Immunoreactivity from Other Biological Activities," , " <i>Proc. Natl. Acad. Sci. USA 77</i> :3211-3214, National Academy of Sciences (1980)	
	NPL20	Méchin, M., <i>et al.</i> , "Identification of Surface-Exposed Linear B-Cell Epitopes of the Nonfimbrial Adhesin CS31A of <i>Escherichia coli</i> by Using Overlapping Peptides and Antipeptide Antibodies," <i>Infect. Immun. 64</i> :3555-3564, American Society for Microbiology (1996)	

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				<i>Application Number</i>	10/701,844
				<i>Filing Date</i>	November 4, 2003
				<i>First Named Inventor</i>	W. James JACKSON
				<i>Art Unit</i>	1645
				<i>Examiner Name</i>	Baskar, Padmavathi
Sheet	3	of	4	<i>Attorney Docket Number</i>	2479.0040002/EJK/C-K

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T ²
	NPL21	Morris, G.E., <i>Methods in Molecular Biology, Vol. 66: Epitope Mapping</i> , Morris, G.E., ed., Humana Press, Totowa, NJ (1996)	
	NPL22	Oettinger, T., <i>et al.</i> , "Characterization of the Delayed Type Hypersensitivity-Inducing Epitope of MPT64 from <i>Mycobacterium tuberculosis</i> ," <i>Scand. J. Immunol.</i> 45:499-503, Blackwell Science, Ltd. (1997)	
	NPL23	Pal, S., <i>et al.</i> , "Monoclonal immunoglobulin A antibody to the major outer membrane protein of <i>Chlamydia trachomatis</i> mouse pneumonitis biovar protects mice against a genital chlamydial challenge," <i>Vaccine</i> 15:575-582, Elsevier Science (1997)	
	NPL24	Pal, S., <i>et al.</i> , "Immunization with and Acellular Vaccine Consisting of the Outer Membrane Complex of <i>Chlamydia trachomatis</i> Induces Protection against a Genital Challenge," <i>Infect. Immun.</i> 65:3361-3369, American Society for Microbiology (1997)	
	NPL25	Read, T.D., <i>et al.</i> , "Genome sequence of <i>Chlamydomonas caviae</i> (<i>Chlamydia psittaci</i> GPIC): examining the role of niche-specific genes in the evolution of the Chlamydiaceae," <i>Nucleic Acids Res.</i> 31:2134-2147, Oxford University Press (2003)	
	NPL26	Roitt, I., <i>et al.</i> , <i>Immunology</i> , Roitt, I., Brostoff, J., and Male, D., eds., St. Louis, MO, CV. Mosby, pp. 7.1-7.10 (1989)	
	NPL27	Saint-Remy, J.R., "Epitope mapping: a new method for biological evaluation and immunotoxicology," <i>Toxicology</i> 119:77-81, Elsevier Science (1997)	
	NPL28	Sandbulte, J., <i>et al.</i> , "Evaluation of <i>Chlamydia psittaci</i> subfraction and subunit preparations for their protective capacities," <i>Vet. Microbiol.</i> 48:269-282, Elsevier Scientific Pub. Co (1996)	
	NPL29	Takahashi, I., <i>et al.</i> , "Epitope Maps of the <i>Escherichia coli</i> Heat-Labile Toxin B Subunit for Development of a Synthetic Oral Vaccine," <i>Infect. Immun.</i> 64:1290-1298, American Society for Microbiology (1996)	
	NPL30	Wood, A.C., <i>et al.</i> , "Identification of antigenic sites on staphylococcal enterotoxin B and toxoid," <i>FEMS Immunol. Med. Microbiol.</i> 17:1-10, Elsevier Science (1997)	
	NPL31	Yanagisawa, S., <i>et al.</i> , Mapping of V β 11 ⁺ helper T cell epitopes on mycobacterial antigen in mouse primed with <i>Myobacterium tuberculosis</i> ," <i>Int. Immunol.</i> 9:227-237, Oxford University Press (1997)	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known	
				Application Number	10/701,844
				Filing Date	November 4, 2003
				First Named Inventor	W. James JACKSON
				Art Unit	1645
				Examiner Name	Baskar, Padmavathi
Sheet	4	of	4	Attorney Docket Number	2479.0040002/EJK/C-K

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T ²
	NPL32	Zhao, Q., <i>et al.</i> , "Recall of Original Serologic Response after Challenge with Homologues and Heterologous <i>Chlamydia trachomatis</i> Serovars," <i>J. Infect. Dis.</i> 173:609 -618, The University of Chicago Stet (1996)	
	NPL33	Zhong, G., <i>et al.</i> , "Antibody Recognition of a Neutralization Epitope on the Major Outer Membrane Protein of <i>Chlamydia trachomatis</i> ," <i>Infect. Immun.</i> 62:1576-1583, American Society for Microbiology (1994)	
	NPL34	Zhu, Y., <i>et al.</i> , "Identification of a <i>Coccidioides immitis</i> Antigen 2 Domain That Expresses B-Cell-Reactive Epitopes," <i>Infect. Immun.</i> 65:3376-3380, American Society for Microbiology (1997)	
	NPL35	Copy of co-pending U.S. Application No. 08/942,596, inventors Jackson, W.J., <i>et al.</i> , filed October 2, 1997 (NOT PUBLISHED)	

585990v1

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.